

JUL 25 2003

FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
1875.1760001APPLICATION NO.
10/084,503APPLICANT
Jes Thyssen et al.FILING DATE
February 28, 2002GROUP
2644

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
|---------------------|-----|--------------------|------|------|-------|-----------|-------------|
| TB | AA1 | 09/772,077 | | Chen | | | 11/27/2000 |
| TB | AB1 | 09/832,131 | | Chen | | | 04/11/2000 |
| TB | AC1 | 09/832,132 | | Chen | | | 04/11/2000 |
| | AD1 | | | | | | |
| | AE1 | | | | | | |
| | AF1 | | | | | | |
| | AG1 | | | | | | |
| | AH1 | | | | | | |
| | AI1 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
|---------------------|-----|--------------------|------|---------|-------|-----------|-------------|
| | AL1 | | | | | | Yes No |
| | AM1 | | | | | | Yes No |
| | AN1 | | | | | | Yes No |
| | AO1 | | | | | | Yes No |
| | AP1 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

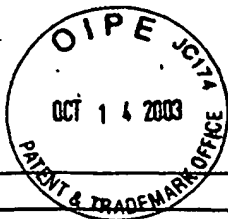
| | | | |
|----|----|---|---|
| TB | AR | 1 | John Makhoul et al., "Adaptive Noise Spectral Shaping and Entropy Coding In Predictive Coding of Speech," <i>IEEE Transactions on Acoustics, Speech, and Signal Processing</i> , Vol. ASSP-27, No. 1, February 1979 |
| TB | AS | 1 | Bishnu S. Atal et al., "Predictive Coding of Speech Signals and Subjective Error Criteria," <i>IEEE Transactions on Acoustics, Speech, and Signal Processing</i> , Vol. ASSP-27, No. 3, June 1979 |
| | AT | 1 | |

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|---------------------|-----|--------------------|---------|-----------------|-------|-----------|-------------|
| T3 | AA1 | 2,927,962 | 03/1960 | C.C. Cutler | | | |
| | AB1 | 4,220,819 | 09/1980 | Atal | | | |
| | AC1 | 4,317,208 | 02/1982 | Araseki et al. | | | |
| | AD1 | 4,776,015 | 10/1988 | Takeda et al. | | | |
| | AE1 | 4,791,654 | 12/1988 | De Marca et al. | | | |
| | AF1 | 4,811,396 | 03/1989 | Yatsuzuka | | | |
| | AG1 | 4,860,355 | 08/1989 | Copperi | | | |
| | AH1 | 4,896,361 | 01/1990 | Gerson | | | |
| | AI1 | 4,918,729 | 04/1990 | Kudoh | | | |
| | AJ1 | 4,963,034 | 10/1990 | Cuperman et al. | | | |
| T3 | AK1 | 4,969,192 | 11/1990 | Chen et al. | | | |

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|---------------------|-----|--------------------|---------|---------|-------|-----------|-------------|
| T3 | AL1 | 0 573 216 A2 | 12/8/93 | Europe | | | Yes No |
| | AM1 | | | | | | Yes No |
| | AN1 | | | | | | Yes No |
| | AO1 | | | | | | Yes No |
| | AP1 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|--|----|---|---|
| | AR | 1 | |
| | AS | 1 | |
| | AT | 1 | E.G. Kimme and F.F. Kuo, "Synthesis of Optimal Filters for a Feedback Quantization System", IEEE Transactions on Circuit Theory, The Institute of Electrical and Electronics Engineers, Inc., Vol. CT-10, No. 3, September 1963, pp. 405-413. |

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|---------------------|-----|--------------------|---------|----------------|-------|-----------|-------------|
| TS | AA2 | 5,007,092 | 04/1991 | Galand et al. | | | |
| 1 | AB2 | 5,060,269 | 10/1991 | Zinser | | | |
| | AC2 | 5,204,677 | 04/1993 | Akagiri et al. | | | |
| | AD2 | 5,313,554 | 05/1994 | Ketchum | | | |
| | AE2 | 5,487,086 | 01/1996 | Bhaskar | | | |
| | AF2 | 5,493,296 | 02/1996 | Sugihara | | | |
| | AG2 | 6,014,618 | 01/2000 | Patel et al. | | | |
| | AH2 | 6,055,496 | 04/2000 | Heidari et al. | | | |
| | AI2 | 6,131,083 | 10/2000 | Miseki et al. | | | |
| | AJ2 | 5,963,898 | 10/1999 | Navarro et al. | | | |
| TS | AK2 | 4,393,272 | 07/1983 | Itakura et al. | | | |

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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
|---------------------|-----|--------------------|------|---------|-------|-----------|-------------|
| | AL2 | | | | | | Yes No |
| | AM2 | | | | | | Yes No |
| | AN2 | | | | | | Yes No |
| | AO2 | | | | | | Yes No |
| | AP2 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

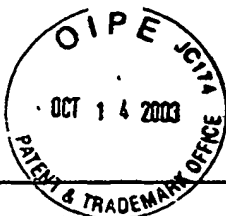
| | | | |
|----|----|---|--|
| TS | AR | 2 | Ira A. Gerson and Mark A. Jasiuk, "Techniques for Improving the Performance of CELP-Type Speech Coders," IEEE Journal on Selected Areas in Communications, IEEE, Vol. 10, No. 5, June 1992, pp. 858-865. |
| TS | AS | 2 | Cheng-Chieh Lee, "An Enhanced ADPCM Coder for Voice Over Packet Networks," International Journal of Speech Technology, Kluwer Academic Publishers, 1999, pp.343-357. |
| TS | AT | 2 | Marcellin, M.W. et al., "Predictive Trellis Coded Quantization of Speech," IEEE Transactions on Acoustics, Speech, And Signal Processing, Vol. 38, No. 1, IEEE, pp. 46-55 (January 1990). |

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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
|---------------------|-----|--------------------|------------|----------------|-------|-----------|-------------|
| TS | AA3 | 6,188,980 B1 | 02/2001 | Thyssen | | | |
| ↑ | AB3 | 2003/0083865 | 05/01/2003 | Thyssen | | | |
| | AC3 | 2003/0078773 | 04/24/2003 | Thyssen | | | |
| ↓ | AD3 | 2003/0135367 | 07/17/2003 | Thyssen et al. | | | |
| TS | AE3 | 2003/0135365 | 07/17/2003 | Thyssen et al. | | | |
| | AF3 | | | | | | |
| | AG3 | | | | | | |
| | AH3 | | | | | | |
| | AI3 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
|---------------------|-----|--------------------|------|---------|-------|-----------|-------------|
| | AL3 | | | | | | Yes No |
| | AM3 | | | | | | Yes No |
| | AN3 | | | | | | Yes No |
| | AO3 | | | | | | Yes No |
| | AP3 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|---|---|
| TS | AR | 3 | Hayashi, S. et al., "Low Bit-Rate CELP Speech Coder with Low Delay," <i>Signal Processing</i> , Elsevier Science B.V., Vol. 72, 1999, pp. 97-105. |
| TS | AS | 3 | Tokuda, K. et al., "Speech Coding Based on Adaptive Mel-Cepstral Analysis," <i>IEEE</i> , 1994, pp. 1-197-1-200. |
| TS | AT | 3 | Marcellin, M.W. and Fischer, T.R., "A Trellis-Search 16 KBIT/SEC Speech Coder with Low-Delay," <i>Proceedings of the Workshop on Speech Coding for Telecommunications</i> , Kluwer Publishers, 1989, pp. 47-56. |

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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | 1913 CLASS | FILING DATE |
|---------------------|-----|--------------------|------|------|-------|------------|-------------|
| | AA4 | | | | | | |
| | AB4 | | | | | | |
| | AC4 | | | | | | |
| | AD4 | | | | | | |
| | AE4 | | | | | | |
| | AF4 | | | | | | |
| | AG4 | | | | | | |
| | AH4 | | | | | | |
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|---------------------|-----|--------------------|------|---------|-------|-----------|-------------|
| | AL4 | | | | | | Yes No |
| | AM4 | | | | | | Yes No |
| | AN4 | | | | | | Yes No |
| | AO4 | | | | | | Yes No |
| | AP4 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|---|--|
| TS | AR | 4 | Watts, L. and Cuperman, V., "A Vector ADPCM Analysis-By-Synthesis Configuration for 16 kbit/s Speech Coding," <i>Proceedings of the Global Telecommunications Conference and Exhibition (Globecom)</i> , IEEE, 1988, pp. 275-279. |
| TS | AS | 4 | Itakura, F., "Line Spectrum representation of linear predictor coefficients of speech signals", <i>The Journal of the Acoustical Society of America</i> , American Institute of Physics for the Acoustical Society of America, Spring 1975, Vol. 57, Supplement No. 1, p. S35. |
| TS | AT | 4 | Kabal, P. and Ramachandran, R.P., "The Computation of Line Spectral Frequencies Using Chebyshev Polynomials", <i>IEEE Transactions on Acoustics, Speech, and Signal Processing</i> , IEEE, December 1986, Vol. ASSP-34, No. 6, pp. 1419-1426. |

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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
|---------------------|-----|--------------------|------|------|-------|-----------|-------------|
| | AA5 | | | | | | |
| | AB5 | | | | | | |
| | AC5 | | | | | | |
| | AD5 | | | | | | |
| | AE5 | | | | | | |
| | AF5 | | | | | | |
| | AG5 | | | | | | |
| | AH5 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
|---------------------|-----|--------------------|------|---------|-------|-----------|-------------|
| | AL5 | | | | | | Yes No |
| | AM5 | | | | | | Yes No |
| | AN5 | | | | | | Yes No |
| | AO5 | | | | | | Yes No |
| | AP5 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|---|--|
| TS | AR | 5 | Rabiner, L.R. and Schafer, R.W., "Digital Processing of Speech Signals", Prentice Hall, 1978, pp. 401-403 and 411-413. |
| | AS | 5 | |
| | AT | 5 | |

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SECOND SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.

1875.1760001

APPLICATION NO.

10/084,503

INVENTORS

Jes THYSSEN et al.

FILING DATE

February 28, 2002

ART UNIT

2644

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
|---------------------|----|-----------------|------|------|-------|-----------|-------------|
| | AA | | | | | | |
| | AB | | | | | | |
| | AC | | | | | | |
| | AD | | | | | | |
| | AE | | | | | | |
| | AF | | | | | | |
| | AG | | | | | | |
| | AH | | | | | | |
| | AI | | | | | | |
| | AJ | | | | | | |
| | AK | | | | | | |

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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
|---------------------|----|-----------------|------|---------|-------|-----------|-------------|
| | AL | | | | | | Yes |
| | | | | | | | No |
| | AM | | | | | | Yes |
| | | | | | | | No |
| | AN | | | | | | Yes |
| | | | | | | | No |
| | AO | | | | | | Yes |
| | | | | | | | No |
| | AP | | | | | | Yes |
| | | | | | | | No |

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)






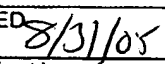
| | | |
|----|-----|--|
| B | AR1 | European Search Report from EP Application No. 02259023.6, dated December 6, 2004, 3 pages. |
| TS | AS1 | European Search Report from EP Application No. 02259024.4, dated December 6, 2004, 3 pages. |
| B | AT1 | Dattoro, J. and Christine Law, <i>Error Spectrum Shaping and Vector Quantization</i> , Stanford University, Autumn 1997, 10 pages. |

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| FORM PTO-1449 | |  | | ATTY. DOCKET NO. 1875.1760001 | | APPLICATION NO. 10/084,503 | | Page 2 of 2 |
| SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT | | | | INVENTORS Jes THYSSEN et al. | | FILING DATE February 28, 2002 | | ART UNIT 2644 |
| U.S. PATENT DOCUMENTS | | | | | | | | |
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE | |
| | AA | | | | | | | |
| | AB | | | | | | | |
| | AC | | | | | | | |
| | AD | | | | | | | |
| | AE | | | | | | | |
| | AF | | | | | | | |
| | AG | | | | | | | |
| | AH | | | | | | | |
| | AI | | | | | | | |
| | AJ | | | | | | | |
| | AK | | | | | | | |
| FOREIGN PATENT DOCUMENTS | | | | | | | | |
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION | |
| | AL | | | | | | Yes | |
| | | | | | | | No | |
| | AM | | | | | | Yes | |
| | | | | | | | No | |
| | AN | | | | | | Yes | |
| | | | | | | | No | |
| | AO | | | | | | Yes | |
| | | | | | | | No | |
| | AP | | | | | | Yes | |
| | | | | | | | No | |
| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | | |
|  | AR2 | European Search Report from EP Application No. 02255681.5, dated October 14, 2004, 2 pages. | | | | | | |
|  | AS2 | Skoglund, J., "Analysis and quantization of glottal pulse shapes," <i>Speech Communication</i> , Elsevier Science B.V., Vol. 24, No. 2, May 1, 1998, pp 133-152. | | | | | | |
|  | AT2 | Jayanti, N.S., "ADPCM Coding Of Speech With Backward Adaptive Algorithms For Noise Feedback And Postfiltering", <i>ICASSP '87, IEEE</i> , April 1987, pp 1238-1201. | | | | | | |
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|  | | | | |  | | | |
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